REMARKS

Reconsideration of the application is requested in view of the remarks below. Claims 1-26 are pending in the appplication. Applicants have indicated that the condition agents are in tablet form. Support for this modification can be found on page 12, second paragraph. Applicants have also modified the claims for clarity and consistency.

Objection

The Office Action objected to the specification at page 5, line 22. In view of the comments, the Specification has been amended from "FIGURES" to – DRAWINGS–. Accordingly, in view of the modifications and remarks above, the objection is believed to be overcome.

Rejections Under 35 USC 112, second paragraph

The Office Action rejected Claims 2 and 25 under 35 USC §112, second paragraph, as indefinite. The rejection should be withdrawn in view of the modifications above and remarks below. In view of the remarks above, the rejection is believed overcome. Reconsideration is requested.

Rejection Under 35 USC 103

Rejection Under U.S.C. 35 USC §103 as unpatentable over U.S. Patent 4,561,981 in view of U.S. Patent 5,371,180.

The Office Action rejected Claims 1-8, and 25-26 over U.S. Patent 4,561,981 (Characklis) in view of U.S. Patent 5,371,180 (Groth.). The rejection should be withdrawn. It is well established that to establish a *prima facie* case of obviousness, the USPTO must satisfy all of the following requirements. First, the prior art relied upon, coupled with the knowledge generally available in the art at the time of the invention, must contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or to combine references. *In re Fine*, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Second, the proposed modification must have had a reasonable expectation of success, as determined from the vantage point of one of ordinary skill in the art at the time the invention was made. *Amgen v. Chugai*

Pharmaceutical Co. 18 USPQ 2d 1016, 1023 (Fed Cir, 1991), *cert. denied* 502 U.S. 856 (1991). Third, the prior art reference or combination of references must teach or suggest all of the limitations of the claims. *In re Wilson*, 165 USPQ 494, 496, (CCPA 1970). In view of the modifications above, the Office Action did not establish a *prima facie* case of obviousness.

Applicants' invention relates to a conditioning agent for conditioning a water component selected from the group consisting of standing water systems and flowing water systems. The conditioning agent is in tablet form and includes a component selected from the group consisting of (1) an active content of polysuccinimide, partial hydrolysates of polysuccinimide, copolymers of polysuccinimide, and mixtures thereof; and (2) fatty acids, fatty acid derivatives, and combinations thereof. In Applicants' invention, although a component of an active content, for example, polysuccinimide has no ionic functionalization, and therefore is almost not soluble in water, the component reacts with water and dissociation of polymer functions can occur. The water changes the neutral succinimide-units in the polymer chain into acidic reacting amic-acid-segments. This reaction also may be accelerated with bases.

Characklis teaches microencapsulating of fouling control chemicals in a slow release capsule (see Abstract). In Characklis, the slow release capsule is used to control the release of the chemical into the system (col. 2, lines 23-25).

Characklis would have discouraged one of ordinary skill in the art to modify Characklis, singly or in combination with Groth, to modify Characklis and make or practice Applicants' invention. One of ordinary skill in the art would have recognized that the scale inhibitors taught by Characklis are easily soluble in water and would be washed away directly. In fact, Characklis expressly mentions the use of microencapsulation to obtain a "slow release property" of these scale inhibitors.

Applicants' invention is directed to a conditioning agent including a component in tablet form, which contains an active content that has no ionic functionalization, and therefore is almost not soluble in water. Thus, in Applicants' invention, a slow release of the component occurs without the use of microencapsulation is not necessary to provide a slow release. Characklis is fundamentally different from Applicants' invention. Characklis's teachings that the release of a

chemical is controlled using the microcapsule; the microcapsule is absorbed by the fouling deposit, and then the chemical is released (col. 2, lines 44-46) would have provided teachings that would have led one of ordinary skill in the art away from Applicants' invention. Reconsideration is requested.

Groth teaches a process for preparing polysuccinimide and the subsequent preparation of polyaspartic acid by reaction of fumaric acid, maleic acid or a derivative thereof with urea, isourea, carbamic acid, ammonium carbamide, ammonium bicarbonate, diammonium carbonate or a mixture of the abovementioned substances in a reactor, the resulting polysuccinimide being converted, if appropriate, into polyaspartic acid or a salt thereof by hydrolysis. Preferably, the preparation occurs in a reactor at temperatures of 100°C. to 300°C. over preferred reaction times ranging from 0.5 minute to 300 minutes (See Abstract).

Groth does not contain any teaching that would have motivated one of ordinary skill in the art to modify Characklis and make or practice Applicants' invention. As mentioned above, Applicants' invention relates to a conditioning agent that is in tablet form and that includes a component selected from the group consisting of (1) an active content of polysuccinimide, partial hydrolysates of polysuccinimide, copolymers of polysuccinimide, and mixtures thereof; and (2) fatty acids, fatty acid derivatives, and combinations thereof. The fatty acids that can be used in combination with polysuccinimide are required to form tablets of the polysuccinimide, nothing else. They are not required for any anticorrosion effect as taught by Characklis (see Amyl-stearate which is an ester of the stearic acid in column 4, line 13), or slow release purposes. Applicants' invention uses the fatty acid for tableting purposes to make sure that the polysuccinimide tablets do not crumble. Under strong alkaline conditions as they occur, for example, in drainage water of tunnel systems polysuccinimide hydrolyzes to form polyaspartic acid. Such hydrolyzation happens so slowly that no other technical features such as microencapsulation are required.

Characklis teaches easy soluble compounds that need microencapsulation to achieve a slow release of the compound into the aqueous medium. Organic acids are normally easy soluble by reaction of a water molecule with the hydrogen atom of the COOH Group of an organic acid (disssoziation). To achieve a slow release effect

that means a solution in water over a certain time range these organic acids are microencapsulated by Characklis. A polymer such as polysuccinimide is totally different. It's a polymer and not a single molecule such in Characklis' case. Characklis, singly or in combination with Groth, fails completely in suggesting to encapsulate a polymer, let alone Applicant's invention. Reconsideration is requested.

In other words, Groth's process for preparing polysuccinimide and the subsequent preparation of polyaspartic acid by reaction of fumaric acid, maleic acid or the other materials would not have motivated one of ordinary skill in the art to modify Characklis microencapsulated fouling control chemicals in a slow release capsule and make or practice Applicants' invention. Groth's teachings that the resulting polysuccinimide can be converted into polyaspartic acid or a salt thereof by hydrolysis would similarly not have provided the requisite motivation under 35 USC 103. Groth does not teach or suggest a conditioning agent as a slow-release depot.

Accordingly, one of ordinary skill in the art following the teachings of Characklis, singly or in combination with Groth, would not have been motivated to modify Characklis and make Applicants' invention. Reconsideration is requested.

In view of the foregoing amendments and remarks, allowance of the pending claims is earnestly requested.

Respectfully submitted,

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